

### **REMARKS**

This amendment is in response to the Official Action dated February 3, 2009. Claims 1-2, and 5-6 have been amended, claim 3 has been canceled without prejudice or disclaimer, and claims 7-13 have been added; as such, claims 1-2, and 4-13 are now pending in this application. Claims 1-2 and 5-6 are independent claims. Reconsideration and allowance is requested in view of the claim amendments and the following remarks. In the amendment, claims 1-2 have been amended to incorporate the features of claim 3. Claims 5-6 have been amended to clarify the features previously recited and to incorporate the features of claim 3. Support for the new and amended claims can be found in paragraphs [0049-0061] and [0072-0081] of the specification.

### **35 USC § 102 Rejections**

Claims 1-6 have been rejected under 35 U.S.C. § 102(b) as being as being anticipated by Nakashima (US 6,473,567, hereinafter referred to as “Nakashima ‘567”).  
Applicant respectfully traverses this rejection.

Claims 1 recites:

*[a] lens barrel assembly having a movable lens disposed in a lens barrel for movement along an optical axis, an actuating mechanism for moving said movable lens along the optical axis, and control means for controlling said actuating mechanism,*

*wherein said actuating mechanism has an externally threaded member extending parallel to said optical axis, a motor for rotating said externally threaded member, an internally threaded member nonrotatably threaded over said externally threaded member for movement along said externally threaded member into abutment against said movable lens in response to rotation of said externally threaded member, and urging means for urging said movable*

*lens in the longitudinal direction of said externally threaded member to move into abutment against said internally threaded member;*

*said lens barrel assembly further comprising **position detecting means** for detecting a position of said movable lens along the optical axis and generating positional data corresponding to the detected data; and*

*wherein said control means comprises **a controller** for controlling an angular displacement of said motor in order to equalize the position of said movable lens along the optical axis to a target position based on said positional data supplied from said position detecting means,*

*wherein said controller judges that said movable lens is forcibly stopped against movement and immediately de-energizing said motor if said positional data remains unchanged for a predetermined period of time while said motor is in rotation, and*

*wherein said controller establishes said positional data when said motor is de-energized as a reference position for a distance over which said movable lens is to move along the optical axis or a position to which said movable lens is to move along the optical axis.*

Nakashima '567 **fails** to disclose, teach or suggest these claimed features.

Nakashima '567 discloses a lens barrel adapted for an optical apparatus having a lens assembly arranged to be movable in an optical axis direction. In particular, the lens barrel contains a shaft member having a screw part thereon, a moving member to be driven by a motor to move in the optical axis direction, and a holding member to hold the lens as the lens moves along the optical axis direction by the moving member. An urging member is arranged to urge the holding member and moving member to move together in the optical axis direction and permits relative movement of the holding member and moving member. A stopper is arranged to have the holding member abut

the moving member if the urging member urges the moving member to come into close proximity of the holding member.

Furthermore, at the time of assembly, the movable lens frame of Nakashima '567 is caused to be drawn inward by the motor while the movement of the movable lens frame in the optical axis direction is measured with a laser length-measuring instrument, a photonic sensor or the like. When the movable lens frame ceases to move in the optical axis direction, i.e., when the measured value comes to vary no longer, the movable lens frame is considered to have abutted on the lens frame. Then, a position obtained immediately before the abutting point is set as the maximum drawn-in (retracted) position of the movable lens frame.

First, the position detecting means is not mentioned in Nakashima '567. Though it discloses a position detector in col. 5, this is certainly different than a “***position detecting means for detecting a position of said movable lens along the optical axis and generating positional data corresponding to the detected data.***”

Second, the control means of claim 1 “*comprises a controller for controlling an angular displacement of said motor in order to equalize the position of said movable lens along the optical axis to a target position based on said positional data supplied from said position detecting means,*” is not disclosed by Nakashima '567.

Though Nakashima '567 discloses a means for determining when the movable lens frame abuts the lens frame, there is no means for controlling the angular displacement of the movable lens frame based on positional data.

Additionally, “*said controller judges that said movable lens is forcibly stopped against movement and immediately de-energizing said motor if said positional data remains unchanged for a predetermined period of time while said motor is in rotation,*” is not even mentioned by Nakashima '567.

Though Nakashima '567 discloses a means for determining that a position obtained before the abutting point is set as the maximum draw-down, there is no mention of de-energizing the motor if the positional data remains unchanged for a predetermined time.

There are other distinctions; Nakashima '567 discloses a stopper on the movable member that abuts the holding member of the when outside force is acted upon on the camera. Applicant's claim 1 recites no such feature.

- **Thus Nakashima '567 fails to disclose, teach or suggest said lens barrel assembly further comprising position detecting means for detecting a position of said movable lens along the optical axis and generating positional data corresponding to the detected data; and wherein said control means comprises a controller for controlling an angular displacement of said motor in order to equalize the position of said movable lens along the optical axis to a target position based on said positional data supplied from said position detecting means, and wherein said controller judges that said movable lens is forcibly stopped against movement and immediately de-energizing said motor if said positional data remains unchanged for a predetermined period of time while said motor is in rotation.**

For the reasons stated above, claims 2 and 5-6 also are distinct from Nakashima '567 (although claims 1, 2 and 5-6 should be interpreted solely based upon the limitations set forth therein). Furthermore, at least for the reason disclosed above, claims 3-4, overcome Nakashima '567 because they depend on independent claim 1 or 2.

Furthermore, at least for the reason disclosed above, newly added claims 7-14 are not disclosed by Nakashima '567 because they depend on independent claims 1, 2, or 5-6, as well as for their separately recited patentable distinct features. For example, claim 7 recites "*said lens barrel assembly further comprising a second position detecting*

***means for detecting a position of said second movable lens along the optical axis and generating second positional data corresponding to a second detected data."***

Accordingly, Applicant respectfully requests that the rejection of the claims under 35 U.S.C. § 102(b) as being anticipated by Nakashima '567 be withdrawn.

In view of the above amendment and remarks, applicant believes the pending application is in condition for allowance.

This response is believed to be a complete response to the Office Action. However, Applicant reserves the right to set forth further arguments supporting the patentability of their claims, including the separate patentability of the dependent claims not explicitly addressed herein, in future papers. Further, for any instances in which the Examiner took Official Notice in the Office Action, Applicant expressly does not acquiesce to the taking of Official Notice, and respectfully request that the Examiner provide an affidavit to support the Official Notice taken in the next Office Action, as required by 37 CFR 1.104(d)(2) and MPEP § 2144.03.

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Respectfully submitted,

By 

Ronald P. Kananen

: Registration No.: 24,104

Christopher M. Tobin

: Registration No.: 40,290

RADER, FISHMAN & GRAUER PLLC

1233 20th Street, N.W.

Suite 501

Washington, DC 20036

(202) 955-3750

Attorney for Applicant